

Amendments to the Claims

The listing of claims will replace all prior versions and listings of claims in the Application.

1. (currently amended) An electromagnetic switch comprising a guiding medium and switch means for controlling propagation within the guiding medium, characterised in that the guiding medium ~~comprises a substantially parallel plate is a~~ parallel plate or an electromagnetic band gap structure, and the switch means comprises an array of electromechanical electromagnetic switch elements positioned either in control spaces within the parallel plate structure or in holes in a ground plane of the electromagnetic band gap structure to allow selective reflection and absorption of an electromagnetic signal in controlled directions.
2. (cancelled)
3. (cancelled)
4. (previously presented) An electromagnetic switch according to claim 1 in which the guiding medium is made of a semi-conductor material.
5. (currently amended) An electromagnetic switch according to claim 1 in which the electromechanical electromagnetic switch elements are activated by displacement of transmissive, absorptive and reflective elements of desired conductivity complex permittivities, where the complex permittivity of each said element determines its ability to transmit, reflect and absorb power, with the

displacement being electrostatic displacement, electric field displacement, magnetic field displacement, or thermal displacement.

6. (currently amended) An electromagnetic switch according to claim 1 in which the elements are in the form of polymers, powders or liquid suspensions of complex permittivities for achieving selectable transmission, reflection and absorption.

7. (currently amended) An electromagnetic switch according to claim 1 in which the parallel plate structure is a microwave parallel plate structure; and including includes at least one element of controllable reflectivity permittivity that may be used to affect the two dimensional spatial distribution of the electromagnetic energy by absorption of energy.

8. (currently amended) An electromagnetic switch according to claim 1 in which the electromechanical electromagnetic switch elements have complex permittivities which are controllable through associated logic devices.

9. (currently amended) A miniaturized An active electromagnetic antenna including at least one electromagnetic switch according to claim 1.

10. (previously presented) An active electromagnetic delay line including at least one electromagnetic switch according to claim 1.